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## NOTICE OF ALLOWANCE AND FEE(S) DUE

8791 7590 03/18/2008

BLAKELY SOKOLOFF TAYLOR & ZAFMAN  
1279 OAKMEAD PARKWAY  
SUNNYVALE, CA 94085-4040

EXAMINER

NGUYEN BA, HOANG VU A

ART UNIT

PAPER NUMBER

2623

DATE MAILED: 03/18/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/693,130

10/23/2003

Yong Ju Lee

51876P402

1732

TITLE OF INVENTION: APPARATUS AND METHOD FOR INJECTING SYNCHRONIZED STREAM DATA IN DIGITAL BROADCASTING ENVIRONMENT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional

YES

\$720

\$300

\$0

\$1020

06/18/2008

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.**

**THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.**

### HOW TO REPLY TO THIS NOTICE:

#### I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

# **PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

8791 7590 03/18/2008

**BLAKELY SOKOLOFF TAYLOR & ZAFMAN**  
1279 OAKMEAD PARKWAY  
SUNNYVALE, CA 94085-4040

## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/693,130 10/23/2003 Yong Ju Lee 51876P402 1732

TITLE OF INVENTION: APPARATUS AND METHOD FOR INJECTING SYNCHRONIZED STREAM DATA IN DIGITAL BROADCASTING ENVIRONMENT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional YES \$720 \$300 \$0 \$1020 06/18/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
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NGUYEN BA, HOANG VU A 2623 725-032000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 \_\_\_\_\_

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 \_\_\_\_\_

3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee  
☐ Publication Fee (No small entity discount permitted)  
☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.  
☐ Payment by credit card. Form PTO-2038 is attached.  
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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10/693,130	10/23/2003	Yong Ju Lee	51876P402	1732
8791	7590	03/18/2008	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN 1279 OAKMEAD PARKWAY SUNNYVALE, CA 94085-4040			NGUYEN BA, HOANG VU A	
			ART UNIT	PAPER NUMBER
			2623	
DATE MAILED: 03/18/2008				

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 940 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 940 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

**Notice of Allowability**

Application No.

10/693,130

Applicant(s)

LEE ET AL.

Examiner

Art Unit

Hoang-Vu A. Nguyen-Ba

2623

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment after non-final filed 12/26/07.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

/Hoang-Vu Antony Nguyen-Ba/  
Primary Examiner, Art Unit 2623

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Eric Hyman on March 11, 2008.

The application has been amended as follows:

#### **In the Claims:**

##### **Claim 1** (currently amended):

at line 24, after "means;" go to the next line and make a new indented paragraph for "a presentation time stamp re-stamping means for re-stamping ... established in the synchronized stream data selection/establishment means; and";

at the last line of the claim, insert -- stream -- after and the synchronized".

##### **Claim 2** (currently amended)

at line 4, after "synchronized stream data;" go to the next line and make a new indented paragraph for "an injection period, which is a time interval for ... and injecting the synchronized stream data to the video/audio transport stream; and";

at line 6, after "data to the video/audio transport stream; and" go to the next line and make a new indented paragraph for "the number of analyzed DAU within the analyzed synchronized stream data during the above established injection period."

in the above limitation, i.e., “the number of analyzed DAU within the analyzed synchronized stream data during the above established injection period” delete “DAU” and insert -- DAUs --.

**Claim 3** (currently amended)

at line 1, after “wherein if the number of analyzed” delete “DAU” and insert -- DAUs --;

at line 3, after “calculates the number of analyzed” delete “DAU” and insert -- DAUs --;

at line 4, delete "59,94" and insert -- 59.94 --;

at line 5, after “the number of analyzed” delete “DAU” and insert -- DAUs --.

**Claim 5** (currently amended)

at line 2, delete “as many DAU as the analyzed DAU” and insert – as many as DAUs as the analyzed DAU –

at the end of the line 3, after “the synchronized stream data selection/establishment means based on” delete “the” and insert -- an --;

at line 4, delete "analyzed DAU" and insert -- analyzed DAUs --.

**Claim 6** (currently amended)

at line 2, before “injection period” delete “the” and insert -- an --;

at line 4, delete “the beginning part and the final part of the analyzing section” and insert – a beginning part and a final part of an analyzing section --.

**Claim 7** (currently amended)

at line 3, before “analyzing section” delete “the” and insert -- an --;

at line 4, before “inputted MPEG-2 transport streams” delete “the”.

**Claim 8** (currently amended)

at line 10, before “injection period” delete “the” and insert -- an --.

**Claim 9** (currently amended)

at line 2, before “first DAU” delete “the” and insert -- an --;  
at line 4, after “re-stamps the presentation time stamp of” insert -- a --;  
at line 7, after “stamped presentation time stamp of” insert “the”;  
at line 8, delete “DAU” and insert -- DAUs --;  
at line 9, before “presentation time offset value” delete “the” and insert -  
- a --;  
at line 12, delete “DAU” and insert -- DAUs --;  
at line 14, delete “DAU” and insert -- DAUs --.

**Claim 11** (currently amended)

at end of line 1, delete “DAU” and insert -- DAUs --  
at line 3, delete “DAU” and insert -- DAUs --.

**Claim 12** (currently amended)

at line 7, delete “the number of analyzed DAU which is the largest  
number of DAU” and insert -- the number of analyzed DAUs which is the  
largest number of DAUs --;  
at line 13, delete “obtaining as many as DAU as the analyzed DAU” and  
insert -- obtaining as many as DAUs as the analyzed DAUs --;  
at line 14, before “analyzing” delete “the” and insert -- an --.

**Claim 13** (currently amended)

at line 2, before “section does not satisfy” insert -- analyzing --.

**Claim 17** (currently amended)

at line 3, after “a new presentation time stamp of” delete “the DAU”  
and insert -- one of the DAUs --;  
at line 7, before “DAU with the PCR information of the” insert -- the --;  
at line 9, before “DAU is larger than a base value” insert “the”.

**Claim 19** (currently amended)

at line 6, before "presentation time offset value" delete "the" and insert -  
- a --;  
at line 11, after "stamp of all" delete "DAU" and insert -- DAUs --.

**EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE**

2. Claims 1-20 are allowed.
3. The following is an examiner's statement of reasons for allowance.

The prior art reference of record, taken alone or in combination, fails to teach or suggest a system and method for injecting synchronized stream data for a digital data broadcasting service. Specifically, the prior art reference of record fails to teach or suggest the following features of Claim 1, when these features are considered in the context of the claim:

*a synchronizing stream data selection/establishment means for selecting synchronized stream data to be multiplexed with a video/audio transport stream, which is inputted from the outside, among the additional data stored in the additional data storing means, and establishing parameter values necessary to multiplex the selected synchronized stream data and the video/audio transport stream (Claim 1);*

*a synchronized stream data injection/management means for determining whether to inject a data access unit (DAU) that forms the synchronized stream data or not based on the information related to the synchronized stream data transport stream generated in the synchronized stream data analyzing means and the information related to the video/audio transport stream generated in the transport stream analyzing means, and controlling the output of the DAU that forms the synchronized stream data which are stored in the additional data storing means (Claim 1);*



*a presentation time stamp re-stamping means for re-stamping the presentation time stamp of the synchronized stream data which are outputted from the additional data storing means based on the parameter values established in the synchronized stream data selection/establishment means (Claim 1).*

The prior art reference of record does not teach or suggest the following steps recited in Claim 12 when these steps are considered in the context of the claim:

*selecting a synchronized stream data that are synchronized with a video/audio transport stream supplied from the outside among additional data used for the digital data broadcasting service, and establishing an injection period which is a time interval for analyzing the video/audio transport stream and the synchronized stream data and injecting the synchronized stream data, the number of analyzed DAUs which is the largest number of DAUs that can be injected into the video/audio transport stream during the above established injection period, and a new presentation time stamp of a first data access unit (DAU) of the synchronized stream data (Claim 12);*

*determining whether to inject the DAU of the synchronized stream data into the video/audio transport stream within the analyzing section or not based on the new presentation time stamp of the first DAU of the synchronized stream data, presentation time stamp of DAU of the synchronized stream data and the PCR information of the video/transport stream (Claim 12);*

*if the DAU of the synchronized stream data is to be injected into the video/audio transport stream within the analyzing section, re-stamping the presentation time stamp of DAU of the synchronized stream data by using the new presentation time stamp of the first DAU of the synchronized stream data (Claim 12).*

The examiner agrees with Applicants that the synchronized stream data injection/management means and the presentation time stamp re-stamping means, as recited in Claim 1 and as shown in FIG. 2 of the present application, are different

than devices 23 and 26, respectively of FIG. 2 of Park-Choi-Kim reference. Furthermore, the examiner found that the claimed synchronized stream data election/establishment means is not met by device 22 of FIG. 2 of Park-Choi-Kim reference, as submitted in the previous Office action.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang-Vu "Antony" Nguyen-Ba whose telephone number is (571) 272-3701. The examiner can normally be reached on Tuesday-Friday from 7:00 am to 5:30 pm.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, John Miller can be reached at (571) 272-7353.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2600 Group receptionist (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Application/Control Number: 10/693,130  
Art Unit: 2623

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Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

/Hoang-Vu Antony Nguyen-Ba/

Primary Examiner, Art Unit 2623

March 12, 2008